

November 28, 2019

Jin-Lei Wang  
Science Editor  
*World Journal of Clinical Cases*

Dear Dr. Wang:

We write to request that you kindly consider our revised manuscript (52165) titled **“Two-level percutaneous endoscopic lumbar discectomy for highly migrated upper lumbar disc herniation: A case report”** for publication in *World Journal of Clinical Cases*. We sincerely thank you and the Reviewer for the thoughtful and helpful comments on our original manuscript. We have verified the accuracy of general information, and have also carefully polished the language to correct for potential typos and grammar mistakes. Moreover, we have revised our manuscript according to the guidelines and requirements for Case Report, and the required accompanying documents as listed have been uploaded. However, since we were unable to record a video during the surgery, several important image files have been uploaded as supplementary materials to demonstrate the critical surgical procedures. Additionally, the current case report was not funded by any grants, so we did not include the approved grant application form. Finally, we have addressed all of the comments the Reviewer and Editor have raised. Specifically, we have included more details to better interpret the current findings in our revised manuscript.

Detailed responses to every comment from Editor are as following:

**Q1:** *Please provide the revised manuscript in word format.*

**Response:** We have carefully modified our manuscript, and provided in word format.

**Q2:** *Please write a summary of less than 100 words to outline the most innovative and important arguments and core contents in your paper to attract readers. Read and record the core tip in MP3 format, as the Audio Core Tip.*

**Response:** We have written the summary as following, and have read/recorded the core tip as Audio Core Tip.

“The conventional open surgery has been considered to be a gold standard procedure for the highly migrated upper lumbar disc herniations. However, the conventional open surgery needs to remove extensive lamina and facet joint, which may induce iatrogenic instability. In this study, we creatively introduce the two-level percutaneous endoscopic lumbar discectomy for highly migrated upper lumbar disc herniation, enable us to completely remove the highly migrated nucleus pulposus and reduce the incidence of surgical complications. Therefore, the two-level PELD is a safe and effective procedure for highly migrated upper lumbar disc herniations.” [Page 2, Core tip]

**Q3:** *Please add PubMed citation numbers and DOI citation to the reference list and list all authors. Please revise throughout. The author should provide the first page of the paper*

without PMID and DOI.

**Response:** We have modified the references according to the Editor's suggestions. However, we did not find the DOI for Reference 15, so we only provided the PMID: 17008941.

**Q4:** *Please provide all the original figure documents separately (without words, and arrows in the figures).*

**Response:** We have uploaded the original figure documents separately as required.

Detailed responses to every comment from the Reviewer are as following:

**Q1:** *This is a well-presented paper on an interesting subject area. The authors stated in the introduction that PELD has been widely used in the treatment of non-migrated upper lumbar disc herniations but not migrated upper lumbar disc herniations due to the anatomic barriers. The authors need to mention more in details how they overcome this problem.*

**Response:** We thank the Reviewer for the constructive comments. We have included the following sentences in Discussion section to further specify how to overcome the anatomic barriers.

Discussion:

“However, there are still limitations for the traditional PELD techniques applied in the treatment of the highly migrated upper lumbar disc herniation. Evidences have showed that the PELD in transforaminal approach could not provide sufficient exposure due to the anatomic barriers, such as the short and fixed nerve roots and narrow spinal canal <sup>5, 6, 20</sup>, which may increase the incidence of nucleus pulposus residue and dural injury. In addition, the implementation of the PELD in interlaminar approach was also limited due to the relatively narrow window and low interlaminar gap for the highly migrated nucleus pulposus, and thus, this technique is only applicable to the lower non-migrated and migrated lumbar disc herniations. But in contrast, the two-level PELD technique was able to provide adequate surgical vision through two working channels, which could alleviate the complications after the surgery.” [Page 7, the 5<sup>th</sup> paragraph to Page 8, the 1<sup>st</sup> paragraph]

**Q2:** *Moreover, please include within the text an address regarding the PELD method applied as outside-in or inside-out approach for clarification of the surgical technique.*

**Response:** We thank the Reviewer for the good advice. We have cited our previous studies to specify the PELD method, and the following sentences have been included in the revised manuscript.

Case presentation:

“The PELD with outside-in approach was performed according to the standard procedure, which has been described in detail in our previous studies <sup>11</sup>.” [Page 5, the 7<sup>th</sup>

paragraph]

**Q3:** *Besides, why did you use the transforaminal approach and not the interlaminar approach? Please discuss in-depth in the discussion.*

**Response:** We appreciate the Reviewer for the good comments. We have discussed the specific reasons in our revised manuscript.

Discussion:

“In addition, the implementation of the PELD in interlaminar approach was also limited due to the relatively narrow window and low interlaminar gap for the highly migrated nucleus pulposus. and thus, this technique is only applicable to the lower non-migrated and migrated lumbar disc herniations.” [Page 7, the 5<sup>th</sup> paragraph to Page 8, the 1<sup>st</sup> paragraph]

**Q4:** *Also, the figures ideally need right/left anterior/posterior orientation labels.*

**Response:** We thank the Reviewer for the careful comments. We have added the orientation labels of “dorsal, ventral, cranial and caudal” for **Figure 2** according to the Reviewer’s suggestions.

Once again, we would like to thank you and the Reviewer for the very helpful comments for the revision of our manuscript. In addressing these constructive comments, we feel that the manuscript has been significantly improved. Thank you very much in advance for your kind consideration of our revised manuscript for publication in *World Journal of Clinical Cases*.

Sincerely yours,

Xin Gu, M.D., Ph.D.